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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,914	12/11/2000	David Cheo	IVGN 251	2341
65482	7590	06/01/2007	EXAMINER	
INVITROGEN CORPORATION			KETTER, JAMES S	
C/O INTELLEVATE			ART UNIT	PAPER NUMBER
P.O. BOX 52050			1636	
MINNEAPOLIS, MN 55402			MAIL DATE	DELIVERY MODE
			06/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/732,914	CHEO ET AL.	
	Examiner	Art Unit	
	James S. Ketter	1636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 09 March 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 22,35-37,40-42,47-54,69,77-100,103-119 and 143-150 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 22,35-37,40-42,47-54,69,77-100,103-119 and 143-150 is/are allowed.
- 6) Claim(s) _____ is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 04 May 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: NOTICE TO COMPLY - SEQUENCER
CRF ERROR REPORT

This application is in condition for allowance except for the following formal matters:

The Computer readable Form of the sequence listing contains errors found by the Scientific and Technical Information Center (STIC), as set forth in the attached Error Report. The errors must be corrected before the case can be passed to issue.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Ketter whose telephone number is 571-272-0770. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel can be reached on 571-272-0781. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JSK
28 May 2007



JAMES KETTER
PRIMARY EXAMINER

Notice to Comply	Application No. 09/732,914	Applicant(s) CHEO et al.	
	Examiner James Ketter	Art Unit 1636	

**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING
NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

Applicant must file the items indicated below within the time period set the Office action to which the Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998).
- 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- 6. The paper copy of the "Sequence Listing" is not the same as the computer readable from of the "Sequence Listing" as required by 37 C.F.R. 1.821(e). The correct SEQ ID NO:2 is present in the paper copy of the of the sequence listing only. Therefore a search of the correct sequence is not possible.
- 7. Other:

Applicant Must Provide:

- An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- An initial or substitute paper copy of the "Sequence Listing", **as well as an amendment specifically directing its entry into the application.**
- A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216 or (703) 308-2923

For CRF Submission Help, call (703) 308-4212 or 308-2923

PatentIn Software Program Support

Technical Assistance.....703-287-0200

To Purchase PatentIn Software.....703-306-2600

PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR REPLY

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/732,914B
Source: IFUD16
Date Processed by STIC: 3/13/07

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

**FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT
MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221**

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER:

69/732914B

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1	<input type="checkbox"/> Wrapped Nucleic <input type="checkbox"/> Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
2	<input type="checkbox"/> Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.
3	<input type="checkbox"/> Misaligned Amino Numbering	The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters , instead.
4	<input type="checkbox"/> Non-ASCII	The submitted file was not saved in ASCII(DOS) text , as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
5	<input type="checkbox"/> Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue . Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
6	<input type="checkbox"/> PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences .
7	<input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
8	<input type="checkbox"/> Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000
9	<input type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
10	<input type="checkbox"/> Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
11	<input checked="" type="checkbox"/> Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
12	<input type="checkbox"/> PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
13	<input type="checkbox"/> Misuse of n/Xaa	"n" can only represent a single <u>nucleotide</u> ; "Xaa" can only represent a single <u>amino acid</u>



IFW16

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/732,914B

DATE: 03/13/2007

TIME: 15:43:47

Input Set : N:\efs\03_12_07\09732914B_efs\IVGN251_ST25.txt
 Output Set: N:\CRF4\03132007\I732914B.raw

3 <110> APPLICANT: Invitrogen Corporation
 4 Cheo, David
 5 Brasch, Michael A.
 6 Temple, Gary F.
 7 Hartley, James L.
 8 Byrd, Devon R.N.

10 <120> TITLE OF INVENTION: Use of Multiple Recombination Sites With Unique Specificity

in

11 Recombinational Cloning
 13 <130> FILE REFERENCE: IVGN 251.2 CIP
 15 <140> CURRENT APPLICATION NUMBER: 09/732,914B
 16 <141> CURRENT FILING DATE: 2000-12-11
 18 <150> PRIOR APPLICATION NUMBER: 60/169,983
 19 <151> PRIOR FILING DATE: 1999-12-10
 21 <150> PRIOR APPLICATION NUMBER: 60/188,020
 22 <151> PRIOR FILING DATE: 2000-03-09
 24 <160> NUMBER OF SEQ ID NOS: 141
 26 <170> SOFTWARE: PatentIn version 3.3
 28 <210> SEQ ID NO: 1
 29 <211> LENGTH: 27
 30 <212> TYPE: DNA
 31 <213> ORGANISM: Artificial
 33 <220> FEATURE:
 34 <223> OTHER INFORMATION: attB0
 36 <400> SEQUENCE: 1
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 40 <210> SEQ ID NO: 2
 41 <211> LENGTH: 27
 42 <212> TYPE: DNA
 43 <213> ORGANISM: Artificial
 45 <220> FEATURE:
 46 <223> OTHER INFORMATION: attP0
 48 <400> SEQUENCE: 2
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 52 <210> SEQ ID NO: 3
 53 <211> LENGTH: 27
 54 <212> TYPE: DNA
 55 <213> ORGANISM: Artificial
 57 <220> FEATURE:
 58 <223> OTHER INFORMATION: attL0
 60 <400> SEQUENCE: 3
 61 agcctgctt tttataactaa gttggca
 64 <210> SEQ ID NO: 4
 65 <211> LENGTH: 27

2003 Net Company
 1000+ Patents Worldwide
 (pg. 1-5)

INVALID
Response

INVALID
Response

SAME
error

~pls
explain
source of
genetic material

See item # 11

²⁷
on error
summary
Sheet
3/13/2007

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/732,914B

DATE: 03/13/2007
TIME: 15:43:47

Input Set : N:\efs\03_12_07\09732914B_efs\IVGN251_ST25.txt
Output Set: N:\CRF4\03132007\I732914B.raw

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67 <213> ORGANISM: Artificial
69 <220> FEATURE:
70 <223> OTHER INFORMATION: attR0
72 <400> SEQUENCE: 4
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77 <211> LENGTH: 25
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79 <213> ORGANISM: Artificial
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82 <223> OTHER INFORMATION: attB1
84 <400> SEQUENCE: 5
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88 <210> SEQ ID NO: 6
89 <211> LENGTH: 27
90 <212> TYPE: DNA
91 <213> ORGANISM: Artificial
93 <220> FEATURE:
94 <223> OTHER INFORMATION: attP1
96 <400> SEQUENCE: 6
97 gttcagctt tttgtacaaa gttggca
100 <210> SEQ ID NO: 7
101 <211> LENGTH: 27
102 <212> TYPE: DNA
103 <213> ORGANISM: Artificial
105 <220> FEATURE:
106 <223> OTHER INFORMATION: attL1
108 <400> SEQUENCE: 7
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112 <210> SEQ ID NO: 8
113 <211> LENGTH: 25
114 <212> TYPE: DNA
115 <213> ORGANISM: Artificial
117 <220> FEATURE:
118 <223> OTHER INFORMATION: attR1
120 <400> SEQUENCE: 8
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124 <210> SEQ ID NO: 9
125 <211> LENGTH: 25
126 <212> TYPE: DNA
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129 <220> FEATURE:
130 <223> OTHER INFORMATION: attB2
132 <400> SEQUENCE: 9
133 acccagctt cttgtacaaa gtgggt
136 <210> SEQ ID NO: 10
137 <211> LENGTH: 27
138 <212> TYPE: DNA

```

Same error

27

Same error

25

See item
on
error

²⁷ Summary
Sheet.

Same error

Same error

27

Same error

25

Same error

25

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/732,914B

DATE: 03/13/2007

TIME: 15:43:47

Input Set : N:\efs\03_12_07\09732914B_efs\IVGN251_ST25.txt
 Output Set: N:\CRF4\03132007\I732914B.raw

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 141 <220> FEATURE:
 142 <223> OTHER INFORMATION: attB2
 144 <400> SEQUENCE: 10
 145 gttcagctt cttgtacaaa gttggca
 148 <210> SEQ ID NO: 11
 149 <211> LENGTH: 27
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 151 <213> ORGANISM: attL2
 153 <400> SEQUENCE: 11
 154 acccagctt cttgtacaaa gttggca 27
 157 <210> SEQ ID NO: 12
 158 <211> LENGTH: 25
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 160 <213> ORGANISM: Artificial
 162 <220> FEATURE:
 163 <223> OTHER INFORMATION: attR2
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 171 <212> TYPE: DNA
 172 <213> ORGANISM: Artificial
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 175 <223> OTHER INFORMATION: attB5
 177 <400> SEQUENCE: 13
 178 caactttatt atacaaagtt gt 22
 181 <210> SEQ ID NO: 14
 182 <211> LENGTH: 27
 183 <212> TYPE: DNA
 184 <213> ORGANISM: Artificial
 186 <220> FEATURE:
 187 <223> OTHER INFORMATION: attP5
 189 <400> SEQUENCE: 14
 190 gttcaactt attatacaca gttggca 27
 193 <210> SEQ ID NO: 15
 194 <211> LENGTH: 24
 195 <212> TYPE: DNA
 196 <213> ORGANISM: Artificial
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 199 <223> OTHER INFORMATION: attL5
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 202 caactttatt atacaaagtt ggca 24
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 206 <211> LENGTH: 25
 207 <212> TYPE: DNA
 208 <213> ORGANISM: Artificial
 210 <220> FEATURE:
 211 <223> OTHER INFORMATION: attR5

NSame errors
27

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/732,914B

DATE: 03/13/2007
TIME: 15:43:47

Input Set : N:\efs\03_12_07\09732914B_efs\IVGN251_ST25.txt
Output Set: N:\CRF4\03132007\I732914B.raw

213 <400> SEQUENCE: 16
 214 gttcaactt attataaaaa gttgt
 217 <210> SEQ ID NO: 17
 218 <211> LENGTH: 22
 219 <212> TYPE: DNA
 220 <213> ORGANISM: Artificial
 222 <220> FEATURE:
 223 <223> OTHER INFORMATION: attB11
 225 <400> SEQUENCE: 17
 226 caactttct atacaaagtt gt 22
 229 <210> SEQ ID NO: 18
 230 <211> LENGTH: 27
 231 <212> TYPE: DNA
 232 <213> ORGANISM: Artificial
 234 <220> FEATURE:
 235 <223> OTHER INFORMATION: attP11
 237 <400> SEQUENCE: 18
 238 gttcaactt tctataaaaa gttggca 27
 241 <210> SEQ ID NO: 19
 242 <211> LENGTH: 24
 243 <212> TYPE: DNA
 244 <213> ORGANISM: Artificial
 246 <220> FEATURE:
 247 <223> OTHER INFORMATION: attL11
 249 <400> SEQUENCE: 19
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 254 <211> LENGTH: 25
 255 <212> TYPE: DNA
 256 <213> ORGANISM: Artificial
 258 <220> FEATURE:
 259 <223> OTHER INFORMATION: attR11
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 262 gttcaactt tctataaaaa gttgt 25
 265 <210> SEQ ID NO: 21
 266 <211> LENGTH: 22
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 268 <213> ORGANISM: Artificial
 270 <220> FEATURE:
 271 <223> OTHER INFORMATION: attB17
 273 <400> SEQUENCE: 21
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 277 <210> SEQ ID NO: 22
 278 <211> LENGTH: 27
 279 <212> TYPE: DNA
 280 <213> ORGANISM: Artificial
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 283 <223> OTHER INFORMATION: attP17
 285 <400> SEQUENCE: 22

*← Same
25
errors*

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/732,914B

DATE: 03/13/2007
TIME: 15:43:47

Input Set : N:\efs\03_12_07\09732914B_efs\IVGN251_ST25.txt
Output Set: N:\CRF4\03132007\I732914B.raw

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286 gttcaactt tgtataaaaa gttggca
289 <210> SEQ ID NO: 23
290 <211> LENGTH: 24
291 <212> TYPE: DNA
292 <213> ORGANISM: Artificial
294 <220> FEATURE:
295 <223> OTHER INFORMATION: attL17
297 <400> SEQUENCE: 23
298 caacttttgt atacaaagtt ggca
301 <210> SEQ ID NO: 24
302 <211> LENGTH: 25
303 <212> TYPE: DNA
304 <213> ORGANISM: Artificial
306 <220> FEATURE:
307 <223> OTHER INFORMATION: attR17
309 <400> SEQUENCE: 24
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313 <210> SEQ ID NO: 25
314 <211> LENGTH: 22
315 <212> TYPE: DNA
316 <213> ORGANISM: Artificial
318 <220> FEATURE:
319 <223> OTHER INFORMATION: attB19
321 <400> SEQUENCE: 25
322 caacttttc gtacaaagtt gt
325 <210> SEQ ID NO: 26
326 <211> LENGTH: 27
327 <212> TYPE: DNA
328 <213> ORGANISM: Artificial
330 <220> FEATURE:
331 <223> OTHER INFORMATION: attP19
333 <400> SEQUENCE: 26
334 gttcaactt ttctacaaaa gttggca
337 <210> SEQ ID NO: 27
338 <211> LENGTH: 24
339 <212> TYPE: DNA
340 <213> ORGANISM: Artificial
342 <220> FEATURE:
343 <223> OTHER INFORMATION: attL19
345 <400> SEQUENCE: 27
346 caacttttc gtacaaagtt ggca
349 <210> SEQ ID NO: 28
350 <211> LENGTH: 25
351 <212> TYPE: DNA
352 <213> ORGANISM: Artificial
354 <220> FEATURE:
355 <223> OTHER INFORMATION: attR19
357 <400> SEQUENCE: 28
358 gttcaactt ttctacaaaa gttgt

```

✓ Same errors

24

25

22

27

24

25

The type of errors shown exist throughout the sequence listing. Please check subsequent sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 03/13/2007
PATENT APPLICATION: US/09/732,914B TIME: 15:43:48

Input Set : N:\efs\03_12_07\09732914B_efs\IVGN251_ST25.txt
Output Set: N:\CRF4\03132007\I732914B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:39; N Pos. 8,9,10,11,12,13,14
Seq#:40; N Pos. 8,9,10,11,12,13,14
Seq#:94; N Pos. 7,8,10,11,12,14,15
Seq#:106; N Pos. 20,21,22,23,24
Seq#:107; N Pos. 25,26,27,28,29
Seq#:108; N Pos. 20,21,22,23,24
Seq#:109; N Pos. 25,26,27,28,29
Seq#:110; N Pos. 27,28
Seq#:113; N Pos. 26
Seq#:114; N Pos. 27,28
Seq#:117; N Pos. 27
Seq#:139; N Pos. 13,14
Seq#:140; N Pos. 13

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28
Seq#:29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52
Seq#:53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76
Seq#:77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100
Seq#:101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118
Seq#:119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136
Seq#:137,138,139,140,141

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/732,914B

DATE: 03/13/2007

TIME: 15:43:48

Input Set : N:\efs\03_12_07\09732914B_efs\IVGN251_ST25.txt
Output Set: N:\CRF4\03132007\I732914B.raw

L:496 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
L:514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
L:1168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:94 after pos.:0
L:1318 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106 after pos.:0
L:1336 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:107 after pos.:0
L:1354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:108 after pos.:0
L:1372 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:109 after pos.:0
L:1390 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:110 after pos.:0
L:1436 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:113 after pos.:0
L:1454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:114 after pos.:0
L:1496 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:117 after pos.:0
L:1766 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:139 after pos.:0
L:1784 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140 after pos.:0